

WHAT IS CLAIMED IS:

1. A cardiac rhythm management system including an external user interface,  
the user interface including:
  - 5 a communication module, adapted for remote communicative coupling to the implantable device;
  - a threshold testing module, adapted for initiating therapy delivery by the implantable device at energies that vary between one or more instances of therapy delivery by the implantable device; and
  - 10 a recorded output indicator of energy associated with an instance of therapy delivery by the implantable device.
2. The system of claim 1, further including a therapy marker associated with an instance of therapy delivery by the implantable device.
- 15 3. The system of claim 2, further including a representation of a cardiac signal acquired by the implantable device.
4. The system of claim 3, in which at least one of the output indicator of energy  
20 and the therapy marker is associated with each instance of therapy delivery by the implantable device.
5. The system of claim 4, further including a printer providing at least one of the output indicator of energy, the therapy marker, and the representation of the  
25 cardiac signal.
6. The system of claim 5, further including an implantable cardiac rhythm management device, adapted for communicative coupling to the user interface.

7. The system of claim 6, further including a leadwire adapted for coupling the cardiac rhythm management device to a patient.

8. The system of claim 2, further including a screen display, and in which the  
5 representation of the cardiac signal being acquired appears on the screen display and is enlarged during threshold testing from the view displayed when threshold testing is not being conducted.

9. The system of claim 2, further including a screen display, and in which the  
10 representation of the cardiac signal, which corresponds to a chamber in which thresholds are being tested, is enlarged during threshold testing.

10. The system of claim 1, in which the threshold testing module automatically varies pacing energies during the threshold test.

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11. The system of claim 1, in which the threshold testing module varies pacing energies during the threshold test based on user commands.

12. A cardiac rhythm management system including a remote user interface, the  
20 user interface including:

a telemetry module, adapted for communicative coupling to the implantable device;

a threshold testing module, adapted for initiating pacing therapy delivery by the implantable device at energies that vary between one or more paces; and

25 a printer, providing a printout including an electrogram, markers of paced and sensed events, and a separate indicator of energy associated with each of the paced markers.

13. A method including:  
pacing a patient at varying energies; and  
recording a separate output indicator of energy associated with each pace.
- 5 14. The method of claim 13, in which recording includes printing a strip chart including an electrogram, markers of paced and sensed events, and a separate indicator of the energy associated with each of the paced markers associated with pacing the patient at varying energies.
- 10 15. The method of claim 14, in which the indicator includes a pace amplitude.
16. The method of claim 14, in which the indicator includes a pace pulsewidth.
17. The method of claim 14, further including displaying on a programmer  
15 screen display the electrogram, the markers of paced and sensed events, and the separate indicator of the energy of each of the paced markers associated with pacing the patient at varying energies.
18. The method of claim 17, further including enlarging the electrogram on the  
20 screen display during threshold testing.
19. The method of claim 17, further including selecting the electrogram to correspond to the chamber being paced at varying energies, if that electrogram isn't already being displayed.
- 25 20. The method of claim 13, further including automatically varying the pacing energies during the threshold test based on a predetermined algorithm.

**21.** The method of claim 13, further including varying the pacing energies during the threshold test based on at least one user command.